

REMARKS

Claim 6 is canceled, without prejudice or disclaimer. Claims 1-5 and 7-10 are pending.

In the office action, claims 1-5 and 7-10 were finally rejected under 35 U.S.C. § 103(a) in view of Japanese Patent Number JP 2000-156450 and U.S. Patent Number 2,744,063 to Shockley. In addition, claim 6 was finally rejected under 35 U.S.C. § 103(a) in view of Japanese Patent Number JP 2000-156450, Shockley, and U.S. Patent Number 3,027,269 to Teshima et al.

Claim 6 is canceled, without prejudice or disclaimer, so reconsideration and withdrawal of the rejection of claim 6 are respectfully requested.

The final rejection of claims 1-5 and 7-10 is respectfully traversed.

The invention disclosed in the present application is intended to solve the technical problem of “how to improve the quality of audio and video signals when transmitted through electrical conductors”. The present patent application does not disclose a new alloy or a new method of plating. On the contrary, the present application discloses a new wire, made of a metal central core coated with a thick layer of Sn-Sb-Cu alloy through dipping in a bath of molten alloy, which shows an improved characteristic of audio and video signal transmission that allows a much lower high and medium frequency distortion.

In the final rejection of claims 1-5 under 35 U.S.C. § 103(a), Japanese patent document JP 2000-156450 is cited which discloses a new lead for electronic components and parts and semiconductor devices. The disclosed lead in JP 2000-156450 comprises an internal copper core coated with a first layer of Sn alloy made of two components, such as Sn-Bi, Sn-Sb or Sn-In, as opposed to the present invention wire using an alloy which is made of three components, while further the disclosed lead in JP 2000-156450 has a second layer of Ag, as opposed to the present

invention wire which discloses only one layer coating and offers improved characteristic in terms of resistance to discoloration while maintaining the same solderability as traditional Sn-Pb coated copper wires. The coating disclosed in Japanese document JP2000-156450 is made through an electrolytic process and the deposited layers have a thickness of just six micrometers.

However, in document JP2000-156450, no teaching nor suggestion is given regarding any improvement of the quality of signal conducted by the disclosed lead. The technical problem solved in document JP2000-156450 is totally different from the technical problem solved by the present invention. Moreover the coating disclosed in the present application is not of electrolytic type, but instead is done by dipping in a bath of molten alloy in order to obtain much greater thickness of the coating, at least 100 micrometers, and a crystalline structure of the coating itself which is apt to reach the desired effect of improving the audio and video electrical signals conduction in terms of higher quality and lower distortion.

Document US 2,744,063 to Shockley concerns a process of electroplating through electrodeposition of Sn-Sb-Cu alloys. The apparatus as disclosed in document US 2,744,063 to Shockley is directed to the bearing coating field and the technical problem to be solved is to determine an improved process to deposit said bearing coating when it is made with an alloy of Sn-Sb-Cu. Again, the technical problem solved in document US2,744,063 to Shockley is totally different from the technical problem solved in the present application and no teaching nor suggestion is given in document US2,744,063 to Shockley regarding any improvement of the quality of signal conducted by a lead comprising a metal internal core, for example, copper, coated by an alloy of Sn-Sb-Cu. Moreover and again the process of deposition of the alloy layer as disclosed in document US2,744,063 to Shockley concerns an electrolytic method which is apt to obtain very much thinner layers with respect to the present invention where the deposition

process is performed through dipping in a bath of molten alloy in order to obtain much greater thickness of the coating for the reasons explained above.

In conclusion, considering documents JP 2000-156450 and US 2,744,063 to Shockley and their combination, no mention or suggestion is made of any lead comprising a metal internal core, for example, copper, coated by a thick layer of an alloy of Sn-Sb-Cu and apt to achieve an electrical improvement of the quality of signal conducted, in terms of a much lower level of high and medium frequency distortion. Therefore claims 1-5 should be regarded as new and inventive with respect to cited documents.

As to the claim rejections under 35 U.S.C. § 103(a) of claims 7-10, these claims 7-10 concern only particular embodiments of the wire of claims 1-5. In the light of the above arguments for patentability of claims 1-5, claims 7-10 should also be regarded new and inventive since they refer to claims that are new and inventive as shown above.

Accordingly, claims 1-5 and 7-10 are patentable over the cited art, so reconsideration and withdrawal of the final rejection are respectfully requested.


Entry and approval of the present amendment and allowance of all pending claims are respectfully requested.

In case of any deficiencies in fees by the filing of the present amendment, the Commissioner is hereby authorized to charge such deficiencies in fees to Deposit Account Number 01-0035.

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